



“Action For a Cleaner Tomorrow” A Middle School Lessons Taste!

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What is Action for a Cleaner Tomorrow?

- **"Action for a cleaner tomorrow"** ("**Action**") is an activity-based, interdisciplinary curriculum supplement.
- A starting place for introducing basic environmental education in the classroom.
 - Hands-on activities that help students
 - get the facts
 - think for themselves
 - form opinions
 - make decisions
 - and take "**Action**" for a cleaner tomorrow!



What is Action for a Cleaner Tomorrow?

- 32 lessons
- The best of the best – for the past 17 years.
- Each lesson provides the learning objective and background as well as teacher preparation time.



Can You Dig It?

Pg 39

- Standard 7-4.4 Soil Composition

- Objectives:

- Basics of Composting
- Understand how composting reduces the amount of waste a household generates
- basics of soil construction



Who does it?

- Nature
- Large scale municipal organizations
- Backyard/School



Why Compost?

- 25% of all garbage generated can be composted
- Free Soil
- Eliminates/reduces need for chemical pesticides/fertilizers
- Saves \$ on garbage removal
- Saves landfill space



Background Basics

- Greens- leaves, fresh clippings, veggie scraps (Nitrogen) 1:3
- Browns- dead leaves, paper, pencil shavings (Carbon) 2:3
- Water – moist as a sponge
- Air- turn once or twice as week reduce bacteria and speed up process (Aerobic)
- Time and ways to change this.



What goes in?

Yes

- Vegetable & fruit
- Bread, pasta, rice, potatoes
- Shredded newspaper, used paper towels
- Egg shells
- Coffee grounds
- Tea bags

No

- Dairy/meat
- Fats
- Oils/grease
- Human/pet waste



Two ways to teach

- Version 1 – building a Compost Pile
- Version 2 – Changing the conditions



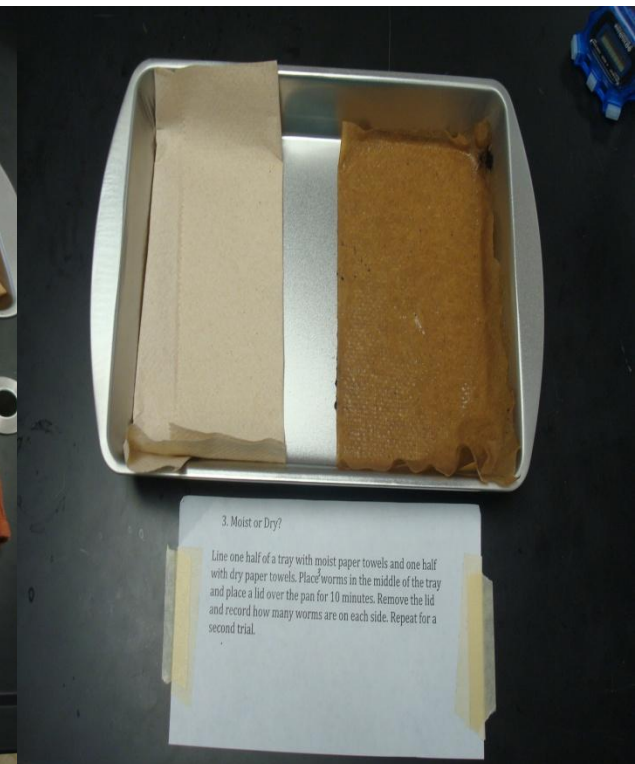
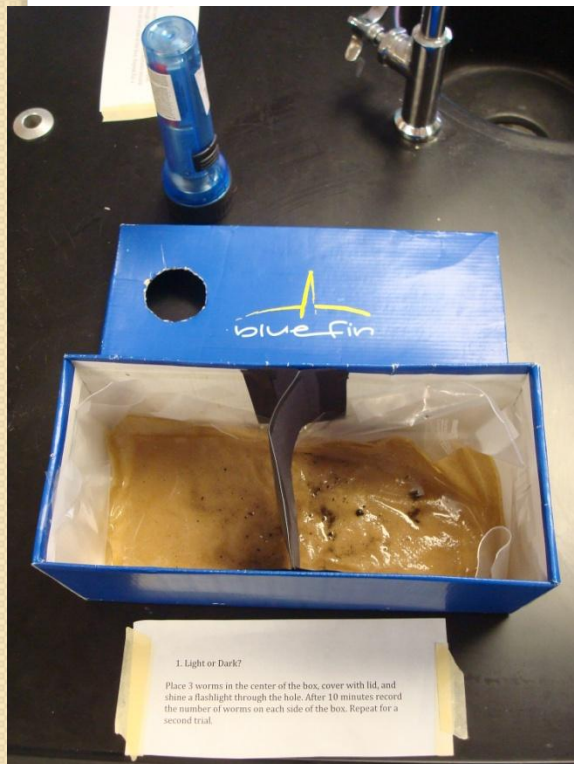
Page 40 -Version 2

	Good Compost Pile	Not Enough Moisture	No Air (aerobic)	High in Nitrogen (green pile)	Low in Nitrogen
Nitrogen: Carbon	1:3	1:3	1:3	1:0	0:3
Ingredients	Layered wet greens and dry browns	Layered dry greens and dry browns	Layered wet greens and dry browns	All greens wet and dry	Mostly dry browns
Moisture	Keep Moist	Do Not Water	Keep Moist	Keep Moist	Keep Moist
Turning	Turn Regularly	Turn Regularly	Do Not Turn	Turn Regularly	Turn Regularly
Container	Holes	Holes	No Holes	Holes	Holes

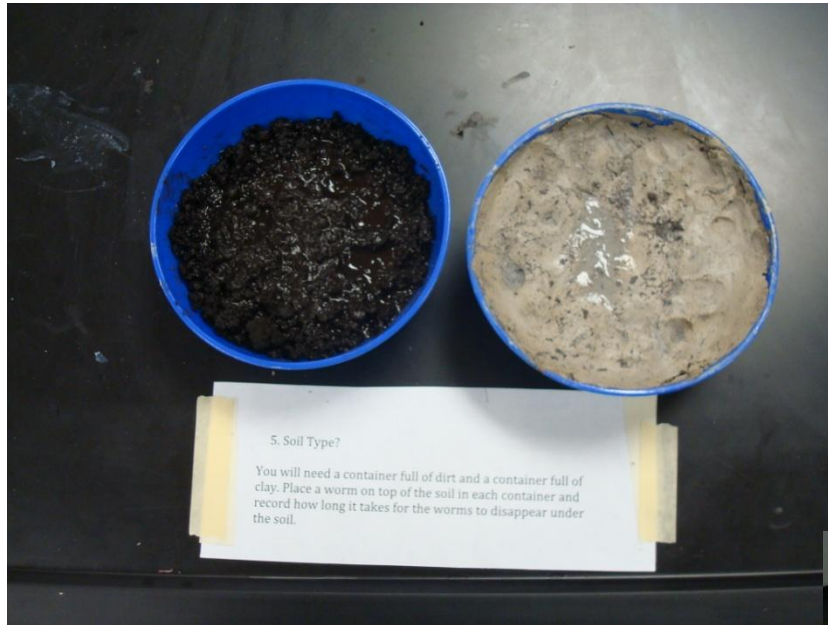
Vermicompost

- A Guest House for our Friend (decomposers- ecology)!
 - Inquiry based lab to determine what makes a suitable habitat/home for Red Worms
 - Worms and casting





Guest House for a Worm



Resource : Smart Gardener Handbook

- Available at:
- <http://www.scdhec.gov>
- Do a search for Smart Gardener
- Click on first item.
- Click on Smart Gardener Handbook on right for pdf

- Standards 7-4.6 3 R's & conservation of resources
- Learning Objective
 - Identify waste that can be recycled, reused, rejected, repaired or composted



Overview



- Estimate weight (MSW -Municipal Solid Waste)
- Bagging It : Bag Choices are -Recycle, Reuse, Reject, Repair, Compost, Landfill
- Students need to discuss each product (what, why, possible alternative choices, and was it necessary)
- Great Math connection

Choices:

- Contact a Representative from DHEC
- Smart Board Lesson
- http://www.scdhec.gov/environment/lwm/recycle/action_smartboard.htm
- Make your own using lesson from book 😊



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Recycle it pg 93

- Standard 7-4.6 Recycling Process
- Recycled/Recyclable/Precycle/symbols
- Chasing Arrows –handout
- Know what is recycled in your area



www.scdhec.gov/recycle



Recycling in Horry County

You can recycle the following items at your Horry County Recycling Center or with your Curbside Recycling Program. For more information, call (843) 347-1651 or visit www.SolidWasteAuthority.org

Recycling YES

MIXED PAPER



Newspapers, magazines, junkmail (shred personal information)



Phone books (remove hard covers, recycle with cardboard)

CARDBOARD



Cereal, snack & cracker boxes



Corrugated cardboard boxes (empty & flatten)

BOTTLES & CANS

(remove & discard caps & lids, empty & rinse all containers)



Aluminum and metal cans (including aerosol)



Plastic jugs and bottles (No. 1 - 7) No Styrofoam



Glass jars and bottles

Recycling NO



Plastic bags (recycle your bags at most grocery stores)



Glass cookware & ceramics



Styrofoam, such as egg cartons, packaging or cups



Paper plates, napkins & plasticware



Lightbulbs (recycle used CFLs at any Home Depot)



Aluminum foil & trays

At your Horry County Recycling Center, you can also recycle:

- ◆ Used Motor Oil
- ◆ Tires
- ◆ Yard Waste
- ◆ Electronic Waste (erase all data)
- ◆ Used Cooking Oil
- ◆ Scrap Metal
- ◆ Batteries (all kinds)

Household Hazardous Waste Facility

Hwy 90, Conway
Open 3rd Saturday every month from 8am to 3pm
Paint, Chemicals, Cleaners
For details, please call (843) 347-1651.



Recycle it

- How do we prepare objects
 - Preparing articles/magazine picture activity & classifying save/sort/recycle activity
- Kids show their examples of recyclable objects they found and how to prepare



Recycling 101 pg 99

- Discuss recycling program in school
 - Use DHEC Packet (bottle)
- Tour your Solid Waste Authority landfill and the Materials Recycling Facility



Life in a Fish Bowl pg 121

- Standard 7-4.5 Water's Movement and importance of protection
- How we pollute our waters and effects on living things
- Prep time important (each child needs container!)
- Sponge fish/Styrofoam fish/real fish?

Your Activity

- Bad News -Your Great Uncle Donald Trumpy who owned a large amount of property has recently passed away. He has no children of friends just 12 cats.
- Good News - is that you are his sole heir and have just inherited a 100 acres of waterfront property and the 12 cats. You just received a letter saying that you will need to pay \$12,000 in taxes on this land or you will lose it.

Procedures

- Your land needs to have the following:
 - Transportation
 - Power Supply
 - Solid Waste Facility
 - Lodging
 - Fresh Water supply

Presentations

- Discuss changes you have made to land
- How did your changes affect water quality

We all Live Downstream pg 139

- Standard 7-4.5 Water's Movement and importance of protection
- How we all share responsibility to keep our rivers and waterways clean
- Point vs Nonpoint Source Pollution
- Pass the pollution demo (each student passes one piece pollution)



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